Rec Jan 24th
ans — 27

My dear E.,

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Jany 20 1878

I find no letter from you dated Dec. 15th.+

The box announced by your letter of 16th inst is not yet in.

Thanks for those pieces Calif. fruit. We saw nothing like these. Ours must be Nuttall's J. andina.

+ I remember a letter of yours in which you announced that the Abies Menziesii of Regner's is another species than the Colorado one! so that the one.

Sta Lucia Mts. should be reached from Sta Barbara. Nobody but Miss Plummer there. Yet Lemmon — who

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adress Miss P. would go.
Monterey & P. insignis —
(also intercalata & muricata)
Dr. Anderson of St. Cruz
with present facilities, can
reach any day he pleases.

My last Scroph. mss
is in printers hands, &
the Acanthaceae ready
for him.
Now I lose a week —
go to Washington — to-
morrow. — shall stop &
see Canby — on
returning.
Did Mrs. Engelmann
get something Mrs. Gray
sent, about Xmas, ? —
and a letter.
I go to W. alone. —
Ever Yours Asa Gray

Rec Febr 5th
Ans — 7

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Feb. 2. 1878

Dear Engelmann.

Box came while I was away at Washington. — all right, I presume. Mr. Watson took care of it.

Hayden has promised to send you a copy of the enlarged photograph of our La Veta camp. — to revert to the St. Louis ~~Acad~~ Academy, "as a historical picture". So I will not, send the extra I have here!

I was nicely at W. — had a day with Canby & a night with the Redfields. — But took a bad cold in ~~the~~ journey homeward — or in a wet day at W. —

Many thanks for the Gentianeous rectifications — most of which, at some

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expense — I can set right.

In haste Ever

Yours

A. Gray

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Rec Jan 14
Ans — 16

HERBARIUM OF HARVARD UNIVERSITY,
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Jany 11 1878

Dear E.

You are doubtless right. And Hooker & I never saw the Juniperus Californica.

The bits I send are from Mt. Stanford same as Lemmon's

Ever yours

A Gray

Lemmon 300 years old
3 feet diameter
Jun. wood

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3''' = 10 years

1/2'' =

1'' = 20 years

1' is 240 years

3 720

Rec Febr 15

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Feb. 11. 1878

Thanks, dear E. for the Abies paper, congratulations on your healthy and hearty three-score-ten— & hopes that "by reason of strength" you may reach your four-score without more "labor & sorrow" than is good.

Mr. Murray is dead. I never knew him. You write Middle of p. 6. "Douglass" — the only slip I perceive.

Well. I see you have — what I saw in Utah Mts — a fallacious Abies subalpina!

And as to your last lines, did I not write you, that Hooker & I saw, cones with the nobilis bracts, which Muir, & Seligmann got in Kern Co.!

And Muir afterwards confirmed it.

So your geographical distinction fails — and there is nothing but the bracts to hang to — and a narrow margin to that. Still we have no nobilis of Shasta with the very short bracts of magnifica.

I caught a cold coming home from Washington — because they could not keep a palace car warm. — have nursed it — but kept busy all but one day, — and I am well.

Ever Yours, A. Gray

Rec Febr 27th

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Feb. 24 1878

My Dear Engelmann

I can't lay hands on your last letter, I suppose Watson may have it.

But I should have acknowledged & thanked you for the parcel sent by Jackson. Only, it lay for days in Boston — and I really got it only 3 days ago.

Well, the specimens are all poisoned and ready to be laid out for Herbarium — I am delighted with them — especially with the Carya's How nice & complete!

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Has Dr. Hayden sent you yet that orig. photo of Camp on La Veta Pass.

Let me know if he has not, & I will stir him up.

Mrs. Gray sends her best love to Mrs. Engelmann, and is greatly obliged for her letter, — a long & nice one — a treat to get.

Printing goes slowly just now. I am revising Labiatae MSS. — just done Hedeoma. Dont want printer to begin on Labiatae till I have reached the end, or nearly. It is the penultimate order — on Plantaginaceae left.

Canby is to be here
on Wednesday 27th —
for a few days —
Wright is here — for a
month's ~~work~~ work for
me, in Herbarium —

Yours ever

Asa Gray

Rec April 2d 1879
ans — 8

BOTANIC GARDEN, CAMBRIDGE, MASS.

March 30

My Dear Engelmann

It is long since we have heard from you, and at the last news George was suffering from erysipelas. We are anxious to know how he, and how you, are getting on. We do from the bottom of our hearts hope that this was only a transient trouble, & that he is to be whole and firm again soon. And you too, my dear old friend, how are you?

Ever yours
A. Gray

No news here.

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Rec Apr 23
Ans — 29

HERBARIUM OF HARVARD UNIVERSITY,
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April 20 1878

My Dear E.,

Yours of 17th is in.

I have no comfort in *Pycnanthemum*; which is every-way a bother.

Fortunately I can send you *P. nudum*. I put a specimen in your Pigeon-hole.

I will about 4th May (30th anniversary of our marriage) be ready to send you 1st part of *Flora*, which you will have to *pay for* — as I can't get a publisher to repr

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the about 2400 dollars
I have paid out — or
have to pay myself —
and I must bleed
all the botanists.
There are other things
to send you. So
let me know if you
want any of our Herb.
Coniferae — to use when
you (soon) will be
at them for Fl. Calif.

It is better to send
all at once.

Lovely, early spring here
also. Ever Yours

Asa Gray

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Rec May 22d

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

May 20 1878

Dear E.

I am just back from ~~the~~ sad ~~sitting~~ duty at Washington. Dear old Henry.

That enlarged photo=graph, is for you, to be left for your St. Louis Academy of Sciences, if it gets ever a home — or for Hortus Botanicus Missouriensis, as you elect. Glad you value it.

I have long had, Plantago Rugeliana, but small & supposed to be only 4 seeded.

Yes, Sisyrinchium albidum came well, & turned over to Sargent

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I am at new ed. of the Structural Botany, as a bit of ad interim work.

Yours ever

A Gray

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Rec July 5
Ans 7

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Contributions

July 1 1878

My Dear E.

Yours of — here this morning. Commencement & its associate days — Dawson of Montreal & daughter, here with us, till this morning — much time lost.

— I'll briefly touch your points.

"Abies bracteata" Hook & Arn. I took it from Parlatore in DC. — Parlatore (Hook.) careless, as usual. no, Nuttall Sylva 1849 I find in, Bot. Mag. 1853, t. 4740. "Abies bracteata," & then quoted "Abies Pinus bracteata, Hook. & Arn. Bot Beech. voy. 394." That may be the 1st name it has as Abies

It is pretty well described as "Pinus venusta," by Douglas.

"Pinus tuberculata, Gordon," Well, I took it for granted you had that all right — I had nothing to say.

"Pinus Californiana;" It is in that form in Loiseleur Nov. Duham. — the date of that vol. is, as I have given you.* ~~the vol.~~

It don't say "large cone" — nor "pinea-like seed" — — but cone 1/3 larger than P. montana & like it, — & Cembra-like seed, if I remember — you have the extract.

Therefore not Coulteri — cone about it. Nor do I believe that any French vessel, stopping there would have got hold of Coulteri. But you may ask Decaisne to look for the cone.

It is because of so much muddle since that I would like to see P. Californiana come up. But really, it is not sufficiently published.

---

*The 1st & 2nd vols were probably 1813 — no date in my large-paper copy — & not by Loiseleur.

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well. — on the whole then you must make the blue-spruce *P. Sitchensis* _ var. *Parryi*. & if species (???) then P. Parryi. That they have called the blue one in England P. Parryana — is all in favor of it. You can take the form *Parryana* if you choose.

We can't say St. Louis in Aug. too long & hot journey. get sick!

No word in *Manual* (Sagittaria by G. E.) about these bulbs!!

I'll dig here. & see if ours has it.

Ever Yours

A Gray

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Rec'd La Salle Sept 17

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Sept. 6 1878

Dear E,

Very sorry I neglected you — had no idea you were going back to St. L. to meeting — have been holidaying — working, &c — and busy no end.

I will write as soon as you get home.

Tell me if I shall send you anything except all forms of Pinus ~~Ponderosa~~ ponderosa. Am out-of-sorts — tired — & worried to-night.

Sorry for your rheumatics!

Our meeting better than I thought possible.

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Poor Goodale's child
died — dysentery. He &
wife travelling in Lower
Canada.

In an old vol. of the our Microscop-
Am. Naturalist. a ~~pupil~~
pupil of mine anticipated
you about stomata in
Silphium laciniatum —
Some one since ~~Davis~~
Denies. Lots of Com=
positae affect vertical
leaves.

Don't be hard on
yours ever.

A. Gray

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Rec Nov 16th
Ans — 26

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Nov. 13 1878

My Dear Engelmann

We are very sorry indeed to hear of your illness, and had no idea of it. Hope we may hear you are recuperating well.

You see, dear old friend, you should not go out on wet evenings, nor wet days either. Stay in doors, send *George* to the patients, nurse yourself, and work at Botany, and all will go well, and you will have more comfort of your life and *more* of it, by many a day. I am glad to hear it is only rheumatism & not *pneumonia* or such.

to give you proper information about Quercus coccinea, Wang., I will get Wangenheim from the College Library, copy out all, & trace the figure — if you say so — after you have done the Pines for Watson.

I have given 2 days to Providence — perhaps wasted ones, in attending the contested probate of poor Olney's will; which gives to Cary & me, in trust for use in Rhode Island, a large share of his property. Decision of the judge not yet rendered.

Instead of Apetalae I am deep in a new — & long wanted edition of my Structural Botany, — shall hardly get through it by New Year. Then the rest of the Committee — who were to do it have failed & put it on to me to write a memorial of Prof. Henry for the next Smithsonian Report. Then Hooker has as yet sent very little towards our Report for Hayden, and I shall have most of that to

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GEORGE E

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Dr. — I could almost wish
to be laid up with rheuma=
tism! You will say; better
not.

Mrs. Stacy & Mary — eldest
daughter are still here, the
two other daughters at a neigh=
bors close by.

I will stir up Hooker about
the ponderosa & Jeffreyi young
cones.

Shortia is rediscovered —
after 100 years — & by
an accidental picking up
by an herb-gatherer's ~~gatherer's~~ boy!
I have dissected flowers &
completed the character.
I send account of it all
to Decaisne.
My wife sends her regards
& sympathy — to you & Madame,
— with mine. Please take the

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best of care of yourself, & be taken care of — & dont go out after patients, but stick to Botany. Be good and you will be happy!

Always Yours

Asa Gray

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Rec Nov 23
Ans — 26

Nova Scotia Botanist
for Juncus ambigu

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Nov. 20 1878

My Dear E.,

I am glad to hear — by your letter to Sargent — that you are getting better. I hope you may be quite well soon.

Now that you are shut up, you can help me a little about Coniferous structure.

I apprehend, & want to adopt Stenzel's view of female flowers — which Eichler gives in to. But tell me how it morphologises Cupressus, Thuja, etc. Do you assume an inner ovuliferous scale ~~(2 phyllary~~

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2-phyllous — of a secondary axis — wholly adherent to face of the bract-scale say in Thuya?

I ought to know — but can't just make out

On the 18th I had my 68th birth-day, in good health and fair preservation.

Ever Yours

A Gray

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Rec Dec 24
ans — 27

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

Dec, 20 1878

My Dear Engelmann.

Me judice, you can take your choice, if you have to put Abies Pattonii into another genus. The ii- & the ana-rule is only a recommendation— a convenient thing, not a law. And, unless with strong reason the earliest form should be kept up.

So you will keep Tsuga as a genus.— as indeed you must if you keep Abies & Picea I suppose. But as Tsuga's chief character was its pollen,— how do you like a species of it having a regular Spruce & Pine pollen.

As to Abietineæ & Cupressineæ, I should say they they run together, are not so distinct as I thought.

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Taxineae is a suborder, or order, if you please
But Taxodineae split Cupressineae

Moreover I am at the point of following Strasburger & Eichler (have you his Blüthendiagramme?) in the opinion that the scale of Cypress is compound. ~~that~~

But even if it is not — and it is hard to make out your idea — from Juniperus — is not in the way.

We don't suppose the abortion of any scale outside of the Juniper scale that bears the ovules — or rather has the ovules in its axil. These are of the same order as the scales ~~below these~~ of the axis below. But they are not ovuliferous, they bear ovules in their axils just as Abies has a diphyllous scale. In Juniper the ovules are all that develops of the carpophylls. I think that was Braun's view, —

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On the whole I think it is the probable view.

— As to Cypress: compare a young female catkin of C. macrocarpa &c— with the cone, and I think you will say that you discern the bracteal in the cone (see one enclosed), making the dorsal part only of the peltate body.

If you had worked up your details of Juniperus Virginiana as fully as you have of J. Californica, I would put them into my Structural Botany. Perhaps I might yet. I should like to ~~follow~~ follow the stages of fructification of Juniperus & Cupressus.

I have had a deal of extraneous work to do — more to write for the Smithsonian a memorial of Henry — Just my luck of having all the work to do.

Thanks for Xmas greetings — And my wife & I send Merry Christmas to you all, with hopes you may be on your legs again, so as to dance around the Christ=mas tree.

And pray hurry up the Conifers.

Yours ever

Asa Gray